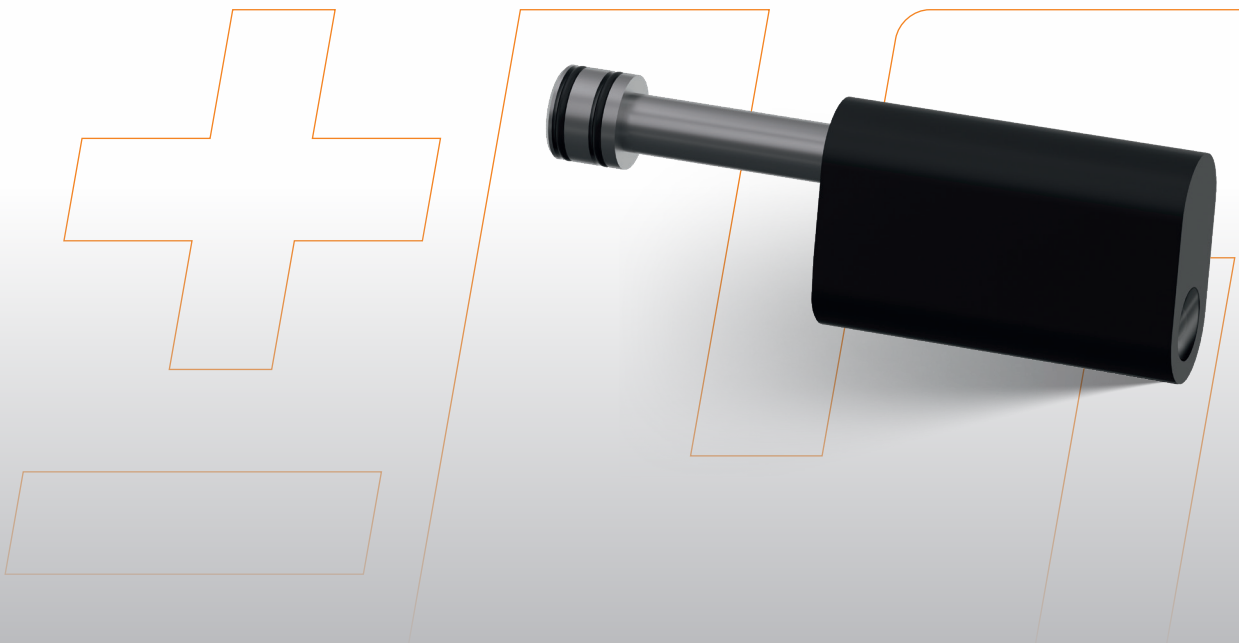
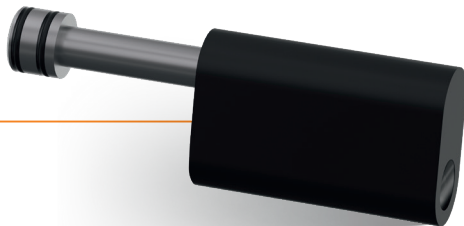


Sensor

OEM conductivity sensor





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General description

The OEM conductivity sensor is designed as a sensing element for integration into customer-specific underwater measurement systems. The conductivity cell is based on a 7-pole platinum electrode arrangement in a cylindrical geometry.

A central platinum electrode injects a measurement signal into the surrounding medium. Two symmetrically arranged electrode pairs measure the resulting voltage drop. The outer electrodes confine the electric field to the interior of the cell, thereby minimizing external influences.

The platinum conductivity cell is characterized by a linear response across the entire operating range and is suitable for continuous measurements as well as long-term applications.

The sensor is supplied without integrated electronics and is intended for direct integration and further processing by the user. Electrical connection, signal processing, and calibration are performed by the customer and must be designed according to the specific application.

Applications

- Integration into custom probe systems

Technical data

Sensor type	7-pole quartz glass cell
Measuring range	Depends on customer calibration: approx. 0...60 mS/cm
Total sensor dimensions	90 × 31 × 16 mm
Quartz glass cell dimensions	Inner length: 45 mm Inner diameter: 8 mm
Initial Accuracy (new sensor)	0.002 mS/cm (depends on calibration and electronics)
Long-term stability	0.002 mS/cm per month (may vary in samples with high biofouling, wastewater, or contaminated media)
Time constant	> 100 ms (depends on sample exchange rate inside the sensor and electronics)
Weight (air)	approx. 40 g
Housing materials	Titanium, epoxy resin
Pressure stability	600 bar
Temperature range	-2...+38 °C
Flange O-rings	10 × 1,5 mm (NBR70)



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